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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,623	07/07/2003	Arnold I. Klayman	SRSLABS.053C3	7854

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EXAMINER	
LEE, PING	
ART UNIT	**PAPER NUMBER**
2615	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/25/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/25/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
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Office Action Summary	Application No.	Applicant(s)	
	10/614,623	KLAYMAN, ARNOLD I.	
	Examiner	Art Unit	
	Ping Lee	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 9, 16, 23 and 24 are rejected on the ground of nonstatutory double patenting over claim 27 of U. S. Patent No. 5,892,830 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: the claimed first input and second input are inherently included to provide the left and right input signals in '830; a difference circuit is being claimed in '830; an equalizer is the equivalent of the "circuit" in '830 and a summing circuit is the equivalent of the first and second amplifier in '830.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

5. Claim 1 is rejected on the ground of nonstatutory double patenting over claims 1 and 2 of U. S. Patent No. 6,597,791 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: the claimed high pass filters and equalizer with specified frequency response are fully disclosed and claimed in '791. Although claims 1 and 2 fails to specifically mention that the level of equalization is adapted to exploit the acoustics of a human ear and especially those unique to a near-field audio system, the

frequency response as specified in '791 is inherently in the sensitive range of acoustics of a human ear.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

6. Claims 16, 17, 19, 23-29 are rejected on the ground of nonstatutory double patenting over claims 8 and 12 of U. S. Patent No. 5,661,808 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: the claimed first and second inputs are inherently included to provide the left and right input signals in patent '808, the claimed difference circuit is the equivalent of a first electronic adder in '808, the claimed spectrally shaping is the equivalent of the equalizer in '808, the claimed combining is the equivalent of the third and fourth electronic adders in '808, the claimed frequency response for claims 25-29 is specified in the frequency response of the equalizer in '808.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

7. Claims 1, 3 and 5 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of U.S. Patent No. 5,661,808 in view of Klayman (US 4,738,669) and claims 2, 6 and 7 are rejected based on the same ground over claims 1 and 6 of '808.

Regarding claims 1, 3 and 5, each and every claimed limitation has been claimed in claims 1 and 7 of '808 with the exception of a first high-pass filter and a second high-pass filter. Klayman teaches a pair of high pass filters (12 and 14) being used for removing the ultra-low frequency from the equalizer, so the equalizer could provide a more natural sound modification. Thus, it would have been obvious to one of ordinary skill in the art to modify '808 in view of Klayman by using two high pass filters to cutoff the low frequency signal applied to the equalizer in order to provide a more natural sound effect.

Regarding claims 2 and 6, claim 6 of '808 specified that the equalizer is being implemented by a DSP. Although not specifically claimed, examiner takes Offical Notice that it was notoriously well known to program the DPS to perform other functions, such as high-pass filters, the difference circuit and the summing circuit. Thus, it would have been obvious to one of ordinary skill in the art to modify claim 6 of '808 to implement the other functions as well in order to consolidate the circuitry.

Regarding claim 7, although patent '808 and Klayman fail to mention the cutoff frequency of the high pass filters, it would have been obvious to one of ordinary skill in

the art to set the high pass filters to remove the ultra-low frequency since the frequency response of the equalizer specifically designed to attenuate the ultra-low frequency.

8. Claims 9, 10, 12, 16, 17 and 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8 and 12 of U.S. Patent No. 5,661,808 in view of Klayman (US 4,738,669); claims 11 and 18 are rejected based on the same ground over claims 8 and 9 of '808; claims 14 and 21 rejected based on the same ground over claims 8 and 10 of '808.

Regarding claims 9, 10, 12, 16, 17 and 19, each and every claimed limitation has been claimed in claim 1 of '808 with the exception of a first high-pass filter and a second high-pass filter. Klayman teaches a pair of high pass filters (12 and 14) being used for removing the ultra-low frequency from the equalizer, so the equalizer could provide a more natural sound modification. Thus, it would have been obvious to one of ordinary skill in the art to modify '808 in view of Klayman by using two high pass filters to cutoff the low frequency signal applied to the equalizer in order to provide a more natural sound effect.

Regarding claims 11 and 18, claim 9 of patent '808 specified the claimed frequency response.

Regarding claims 14 and 21, claim 10 of '808 specified that the equalizer is being implemented by a DSP. Although not specifically claimed, examiner takes Offical Notice that it was notoriously well known to program the DPS to perform other functions, such as high-pass filters, the difference circuit and the summing circuit. Thus, it would

have been obvious to one of ordinary skill in the art to modify claim 6 of '808 to implement the other functions as well in order to consolidate the circuitry.

9. Claims 1, 4, 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,597,791 in view of Desper (US 5,412,731).

Regarding claims 1, 4 and 8, claims 1 and 2 of '791 fails to specify attenuator/level adjuster. Desper teaches an attenuator/level adjuster for adjusting the difference signal before it being equalized by the equalizer to provide control of the audio image. Thus, it would have been obvious to one of ordinary skill in the art to modify patent '791 in view of Desper by utilizing the attenuator/level adjuster to perform such function in order to allow the user adjust the audio image.

10. Claims 9, 13 and 15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 27 of U.S. Patent No. 65,892,830 in view of Desper (US 5,412,731).

Regarding claims 9, 13 and 15, claim 27of patent '830 fails to specify attenuator/level adjuster. Desper teaches an attenuator/level adjuster for adjusting the difference signal before it being equalized by the equalizer to provide control of the audio image. Thus, it would have been obvious to one of ordinary skill in the art to modify patent '830 in view of Desper by utilizing the attenuator/level adjuster to perform such function in order to allow the user adjust the audio image.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 16 and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Desper (US 5,412,731).

Regarding claims 16, 23 and 24, Desper discloses an apparatus for enhancing sound, the apparatus comprising:

A first input and a second input (48, 50) wherein the first and second inputs (48, 50) comprise at least a set of lower frequencies relative to other frequencies (the original signals inherent include lower frequencies in combination with other frequencies);

A difference circuit (74) configured to identify difference information in the first and second inputs (48, 50);

An equalizer (110, 112) configured to spectrally shape the difference information in the first and second inputs (from 74), wherein the difference information spectrally shaped by the equalizer does not spectrally shape the set of lower frequencies (this is done by filter 94); and

A summer circuit (80) configured to combine the spectrally shaped difference information (from 112) with at least a portion of the set of lower frequencies in the first input (from 74) to generate a first output, a summing circuit (60) further configured to combine the spectrally shaped difference information (from 110) with at least a portion of the set of lower frequencies in the second input (from 76) to generate a second output.

Regarding claim 20, Desper shows the level adjust circuit (96 and/or 102).

Regarding claim 22, Desper shows the attenuator (102 in manual mode).

Regarding claim 21, Desper fails to show DSP. However, Desper teaches the digital delay being used. Examiner takes Offical Notice that it was well known in the art to use DSP by programming the DSP to perform the equalization function due to its superior performance. Thus, it would have been obvious to one of ordinary skill in the art to modify Desper by utilizing the DSP to perform the function as taught in Desper in order to obtain fast and accurate performance.

Response to Arguments

13. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ping Lee
Primary Examiner
Art Unit 2615

pwl